Claims:

1. A method for logging the performance of a vehicle suspension system including the steps of measuring the dynamic effect of an impulsive load with an electronic weighing system, wherein the electronic weighing system is mounted onboard the vehicle, and determining one or more parameters selected from the group consisting of the dampening ratio of the suspension, the oscillation frequency of the suspension and the impact loading of the vehicle.

2. A method according to claim 1 wherein the electronic weighing system mounted on board the vehicle includes at least one load measuring element, associated with one or more suspension component, each load measuring element associated with a signal amplifier, each signal amplifier associated with a central power module and a meter to display the data and/or the collated results of the tests performed.

3. A method according to claim 2 wherein the signal amplifiers used are adapted to store the results of calibration testing.

4. A method according to claim 2 wherein a central meter is provided to which all load measuring elements transmit data.

5. A method according to claim 2 wherein the meter is a multi-channel meter capable of receiving information on multiple channels, each of the channels adapted to receive data from an axle grouping.

6. A method according to claim 5 wherein up to eight load measuring elements provide information to the meter on each channel.

7. A method according to claim 2 wherein the system includes an on-board storage device to receive and record all information from all associated load measuring elements.

8. A method according to claim 7 wherein the storage device includes a data log allowing the tracking of the information collected according to dates, times, and particular dynamic parameters such as G-force and time, both of which can be either pre-set or varied to suit particular operating conditions.

9. A method according to claim 2 wherein the meter is adapted for communication with a tool for analysis of the collected information, and is associated with a communication means for transmitting and/or receiving information.

10. A method according to claim 2 wherein a plurality of vehicles use the method, each vehicle provided with a vehicle locating means.

11. A method according to claim 2, wherein the system further includes one or more remote interrogation units adapted to allow remote access to the meter provided in a vehicle, the remote interrogation units allowing the viewing and/or analysis of information collected.

12. A method according to claim 1 wherein the performance of the vehicle suspension system is logged over a standard road section at different times to test the performance of an individual axle or group of axles to an impulsive load.

13. A method according to claim 12 including the step of comparing the performance of the vehicle suspension system to predetermined standards.

14. A method according to claim 12 wherein the performance of the vehicle suspension system when the suspension is new is compared to performance at various periods throughout the life of the suspension in order to ensure that the performance of the suspension remains within the predetermined standards.

15. A method according to claim 12 including a step test in which a specified height step downward is used to create a negative step input to the vehicle suspension for the purpose of determining damping ratio and fundamental frequency of axle-to-body bounce of the suspension.

16. A method according to claim 15 wherein the step test is conducted over a predetermined height step and also at a predetermined speed of passing over the step.

17. A method according to claim 16 further allowing the adaptation of the data to allow for differences in the speed and height of the step when calculating the tested parameters.

18. A method according to claim 12 including a series of tests performed by driving a combination test rig vehicle over a 50mm bump at approximately 5km/h to provide an approximation to a positive impulse signal applied to the suspension of the combination test rig vehicle.

19. A method according to claim 12 including a test in which the variation in a mass signal is recorded as the combination test rig vehicle travels along a normal, uneven road at speed.

20. A method according to claim 19 wherein a location device is linked to the data collected, to precisely locate the portion of road upon which the test was conducted for future comparison.

21. A method according to claim 12 wherein the performance of the vehicle suspension system is logged over a variable road section at different times, the position of the vehicle being identifiable at all times during the logging process, allowing data to be collected about the condition of the roads which a test vehicle travels over.

22. A method according to claim 21 wherein the logging is triggered by the application of a particular preset magnitude impulsive load.

23. A method according to claim 22 wherein the location of the vehicle is ascertainable with precision using locating means.